SEQUENCE LISTING

<110> Chano, Tokuhiro
Okabe, Hidetoshi
Ikegawa, Shiro

<120> RB1 gene induced protein and gene thereof

<130> GP02-1023PCT

<150> JP P2002-161400
<151> 2002-06-03

<150> JP P2002-214978
<151> 2002-07-24

<160> 132

<170> PatentIn version 3.1

<210> 1
<211> 1594
<212> PRT
<213> Unknown

<220>
<223> human RB1CC1

<400> 1

Met Lys Leu Tyr Val Phe Leu Val Asn Thr Gly Thr Thr Leu Thr Phe
1   5   10   15

Asp Thr Glu Leu Thr Val Gln Thr Val Ala Asp Leu Lys His Ala Ile
            20   25   30

Gln Ser Lys Tyr Lys Ile Ala Ile Gln His Gln Val Leu Val Val Asn
        35   40   45

Gly Gly Glu Cys Met Ala Ala Asp Arg Arg Val Cys Thr Tyr Ser Ala
    50   55   60

Gly Thr Asp Thr Asn Pro Ile Phe Leu Phe Asn Lys Glu Met Ile Leu

```
        65                    70                    75                    80

Cys Asp Arg Pro Pro Ala Ile Pro Lys Thr Thr Phe Ser Thr Glu Asn
            85                  90                  95

Asp Met Glu Ile Lys Val Glu Glu Ser Leu Met Met Pro Ala Val Phe
            100                 105                 110

His Thr Val Ala Ser Arg Thr Gln Leu Ala Leu Glu Met Tyr Glu Val
            115                 120                 125

Ala Lys Lys Leu Cys Ser Phe Cys Glu Gly Leu Val His Asp Glu His
            130             135                 140

Leu Gln His Gln Gly Trp Ala Ala Ile Met Ala Asn Leu Glu Asp Cys
145                 150                 155                 160

Ser Asn Ser Tyr Gln Lys Leu Leu Phe Lys Phe Glu Ser Ile Tyr Ser
                165                 170                 175

Asn Tyr Leu Gln Ser Ile Glu Asp Ile Lys Leu Lys Leu Thr His Leu
                180                 185                 190

Gly Thr Ala Val Ser Val Met Ala Lys Ile Pro Leu Leu Glu Cys Leu
            195                 200                 205

Thr Arg His Ser Tyr Arg Glu Cys Leu Gly Arg Leu Asp Ser Leu Pro
            210                 215                 220

Glu His Glu Asp Ser Glu Lys Ala Glu Thr Lys Arg Ser Thr Glu Leu
225                 230                 235                 240

Val Leu Ser Pro Asp Met Pro Arg Thr Thr Asn Glu Ser Leu Leu Thr
                245                 250                 255
```

```
Ser Phe Pro Lys Ser Val Glu His Val Ser Pro Asp Thr Ala Asp Ala
            260             265             270

Glu Ser Gly Lys Glu Ile Arg Glu Ser Cys Gln Ser Thr Val His Gln
            275             280             285

Gln Asp Glu Thr Thr Ile Asp Thr Lys Asp Gly Asp Leu Pro Phe Phe
            290             295             300

Asn Val Ser Leu Leu Asp Trp Ile Asn Val Gln Asp Arg Pro Asn Asp
305             310             315             320

Val Glu Ser Leu Val Arg Lys Cys Phe Asp Ser Met Ser Arg Leu Asp
                325             330             335

Pro Arg Ile Ile Arg Pro Phe Ile Ala Glu Cys Arg Gln Thr Ile Ala
                340             345             350

Lys Leu Asp Asn Gln Asn Met Lys Ala Ile Lys Gly Leu Glu Asp Arg
            355             360             365

Leu Tyr Ala Leu Asp Gln Met Ile Ala Ser Cys Gly Arg Leu Val Asn
            370             375             380

Glu Gln Lys Glu Leu Ala Gln Gly Phe Leu Ala Asn Gln Lys Arg Ala
385             390             395             400

Glu Asn Leu Lys Asp Ala Ser Val Leu Pro Asp Leu Cys Leu Ser His
            405             410             415

Ala Asn Gln Leu Met Ile Met Leu Gln Asn His Arg Lys Leu Leu Asp
            420             425             430

Ile Lys Gln Lys Cys Thr Thr Ala Lys Gln Glu Leu Ala Asn Asn Leu
            435             440             445
```

His Val Arg Leu Lys Trp Cys Cys Phe Val Met Leu His Ala Asp Gln
    450   455   460

Asp Gly Glu Lys Leu Gln Ala Leu Leu Arg Leu Val Ile Glu Leu Leu
465   470   475   480

Glu Arg Val Lys Ile Val Glu Ala Leu Ser Thr Val Pro Gln Met Tyr
              485   490   495

Cys Leu Ala Val Val Glu Val Val Arg Arg Lys Met Phe Ile Lys His
              500   505   510

Tyr Arg Glu Trp Ala Gly Ala Leu Val Lys Asp Gly Lys Arg Leu Tyr
              515   520   525

Glu Ala Glu Lys Ser Lys Arg Glu Ser Phe Gly Lys Leu Phe Arg Lys
    530   535   540

Ser Phe Leu Arg Asn Arg Leu Phe Arg Gly Leu Asp Ser Trp Pro Pro
545   550   555   560

Ser Phe Cys Thr Gln Lys Pro Arg Lys Phe Asp Cys Glu Leu Pro Asp
              565   570   575

Ile Ser Leu Lys Asp Leu Gln Phe Leu Gln Ser Phe Cys Pro Ser Glu
              580   585   590

Val Gln Pro Phe Leu Arg Val Pro Leu Leu Cys Asp Phe Glu Pro Leu
              595   600   605

His Gln His Val Leu Ala Leu His Asn Leu Val Lys Ala Ala Gln Ser
    610   615   620

Leu Asp Glu Met Ser Gln Thr Ile Thr Asp Leu Leu Ser Glu Gln Lys
625   630   635   640

5 / 61

Ala Ser Val Ser Gln Thr Ser Pro Gln Ser Ala Ser Ser Pro Arg Met
                645   650   655

Glu Ser Thr Ala Gly Ile Thr Thr Thr Thr Ser Pro Arg Thr Pro Pro
                660   665   670

Pro Leu Thr Val Gln Asp Pro Leu Cys Pro Ala Val Cys Pro Leu Glu
            675   680   685

Glu Leu Ser Pro Asp Ser Ile Asp Ala His Thr Phe Asp Phe Glu Thr
            690   695   700

Ile Pro His Pro Asn Ile Glu Gln Thr Ile His Gln Val Ser Leu Asp
705   710   715   720

Leu Asp Ser Leu Ala Glu Ser Pro Glu Ser Asp Phe Met Ser Ala Val
                725   730   735

Asn Glu Phe Val Ile Glu Glu Asn Leu Ser Ser Pro Asn Pro Ile Ser
                740   745   750

Asp Pro Gln Ser Pro Glu Met Met Val Glu Ser Leu Tyr Ser Ser Val
                755   760   765

Ile Asn Ala Ile Asp Ser Arg Arg Met Gln Asp Thr Asn Val Cys Gly
                770   775   780

Lys Glu Asp Phe Gly Asp His Thr Ser Leu Asn Val Gln Leu Glu Arg
785   790   795   800

Cys Arg Val Val Ala Gln Asp Ser His Phe Ser Ile Gln Thr Ile Lys
                805   810   815

Glu Asp Leu Cys His Phe Arg Thr Phe Val Gln Lys Glu Gln Cys Asp

```
                  820                 825                 830

Phe Ser Asn Ser Leu Lys Cys Thr Ala Val Glu Ile Arg Asn Ile Ile
        835                 840                 845


Glu Lys Val Lys Cys Ser Leu Glu Ile Thr Leu Lys Glu Lys His Gln
        850                 855                 860


Lys Glu Leu Leu Ser Leu Lys Asn Glu Tyr Glu Gly Lys Leu Asp Gly
865                 870                 875                 880


Leu Ile Lys Glu Thr Glu Glu Asn Glu Asn Lys Ile Lys Lys Leu Lys
                885                 890                 895


Gly Glu Leu Val Cys Leu Glu Glu Val Leu Gln Asn Lys Asp Asn Glu
            900                 905                 910


Phe Ala Leu Val Lys His Glu Lys Glu Ala Val Ile Cys Leu Gln Asn
        915                 920                 925


Glu Lys Asp Gln Lys Leu Leu Glu Met Glu Asn Ile Met His Ser Gln
        930                 935                 940


Asn Cys Glu Ile Lys Glu Leu Lys Gln Ser Arg Glu Ile Val Leu Glu
945                 950                 955                 960


Asp Leu Lys Lys Leu His Val Glu Asn Asp Glu Lys Leu Gln Leu Leu
                965                 970                 975


Arg Ala Glu Leu Gln Ser Leu Glu Gln Ser His Leu Lys Glu Leu Glu
            980                 985                 990


Asp Thr Leu Gln Val Arg His Ile Gln Glu Phe Glu Lys Val Met Thr
        995                 1000                1005
```

```
Asp His Arg Val Ser Leu Glu  Glu Leu Lys Lys Glu  Asn Gln Gln
    1010             1015             1020

Ile Ile Asn Gln Ile Gln Glu  Ser His Ala Glu Ile  Ile Gln Glu
    1025             1030             1035

Lys Glu Lys Gln Leu Gln Glu  Leu Lys Leu Lys Val  Ser Asp Leu
    1040             1045             1050

Ser Asp Thr Arg Cys Lys Leu  Glu Val Glu Leu Ala  Leu Lys Glu
    1055             1060             1065

Ala Glu Thr Asp Glu Ile Lys  Ile Leu Leu Glu Glu  Ser Arg Ala
    1070             1075             1080

Gln Gln Lys Glu Thr Leu Lys  Ser Leu Leu Glu Gln  Glu Thr Glu
    1085             1090             1095

Asn Leu Arg Thr Glu Ile Ser  Lys Leu Asn Gln Lys  Ile Gln Asp
    1100             1105             1110

Asn Asn Glu Asn Tyr Gln Val  Gly Leu Ala Glu Leu  Arg Thr Leu
    1115             1120             1125

Met Thr Ile Glu Lys Asp Gln  Arg Ile Ser Glu Leu  Ile Ser Arg
    1130             1135             1140

His Glu Glu Glu Ser Asn Ile  Leu Lys Ala Glu Leu  Asn Lys Val
    1145             1150             1155

Thr Ser Leu His Asn Gln Ala  Phe Glu Ile Glu Lys  Asn Leu Lys
    1160             1165             1170

Glu Gln Ile Ile Glu Leu Gln  Ser Lys Leu Asp Ser  Glu Leu Ser
    1175             1180             1185
```

```
Ala Leu  Glu Arg Gln Lys Asp  Glu Lys Ile Thr Gln  Gln Glu Glu
    1190                1195               1200


Lys Tyr  Glu Ala Ile Ile Gln  Asn Leu Glu Lys Asp  Arg Gln Lys
    1205                1210               1215


Leu Val  Ser Ser Gln Glu Gln  Asp Arg Glu Gln Leu  Ile Gln Lys
    1220                1225               1230


Leu Asn  Cys Glu Lys Asp Glu  Ala Ile Gln Thr Ala  Leu Lys Glu
    1235                1240               1245


Phe Lys  Leu Glu Arg Glu Val  Val Glu Lys Glu Leu  Leu Glu Lys
    1250                1255               1260


Val Lys  His Leu Glu Asn Gln  Ile Ala Lys Ser Pro  Ala Ile Asp
    1265                1270               1275


Ser Thr  Arg Gly Asp Ser Ser  Ser Leu Val Ala Glu  Leu Gln Glu
    1280                1285               1290


Lys Leu  Gln Glu Glu Lys Ala  Lys Phe Leu Glu Gln  Leu Glu Glu
    1295                1300               1305


Gln Glu  Lys Arg Lys Asn Glu  Glu Met Gln Asn Val  Arg Thr Ser
    1310                1315               1320


Leu Ile  Ala Glu Gln Gln Thr  Asn Phe Asn Thr Val  Leu Thr Arg
    1325                1330               1335


Glu Lys  Met Arg Lys Glu Asn  Ile Ile Asn Asp Leu  Ser Asp Lys
    1340                1345               1350


Leu Lys  Ser Thr Met Gln Gln  Gln Glu Arg Asp Lys  Asp Leu Ile
    1355                1360               1365
```

```
Glu Ser  Leu Ser Glu Asp Arg  Ala Arg Leu Leu Glu  Glu Lys Lys
    1370             1375           1380

Lys Leu  Glu Glu Glu Val Ser  Lys Leu Arg Ser Ser  Ser Phe Val
    1385             1390           1395

Pro Ser  Pro Tyr Val Ala Thr  Ala Pro Glu Leu Tyr  Gly Ala Cys
    1400             1405           1410

Ala Pro  Glu Leu Pro Gly Glu  Ser Asp Arg Ser Ala  Val Glu Thr
    1415             1420           1425

Ala Asp  Glu Gly Arg Val Asp  Ser Ala Met Glu Thr  Ser Met Met
    1430             1435           1440

Ser Val  Gln Glu Asn Ile His  Met Leu Ser Glu Glu  Lys Gln Arg
    1445             1450           1455

Ile Met  Leu Leu Glu Arg Thr  Leu Gln Leu Lys Glu  Glu Glu Asn
    1460             1465           1470

Lys Arg  Leu Asn Gln Arg Leu  Met Ser Gln Ser Met  Ser Ser Val
    1475             1480           1485

Ser Ser  Arg His Ser Glu Lys  Ile Ala Ile Arg Asp  Phe Gln Val
    1490             1495           1500

Gly Asp  Leu Val Leu Ile Ile  Leu Asp Glu Arg His  Asp Asn Tyr
    1505             1510           1515

Val Leu  Phe Thr Val Ser Pro  Thr Leu Tyr Phe Leu  His Ser Glu
    1520             1525           1530

Ser Leu  Pro Ala Leu Asp Leu  Lys Pro Gly Glu Gly  Ala Ser Gly
```

```
                  1535              1540              1545
```

Ala Ser Arg Arg Pro Trp Val Leu Gly Lys Val Met Glu Lys Glu
     1550   1555   1560

Tyr Cys Gln Ala Lys Lys Ala Gln Asn Arg Phe Lys Val Pro Leu
     1565   1570   1575

Gly Thr Lys Phe Tyr Arg Val Lys Ala Val Ser Trp Asn Lys Lys
     1580   1585   1590

Val

<210> 2
<211> 1588
<212> PRT
<213> Unknown

<220>
<223> mouse Rb1cc1

<400> 2

Met Lys Leu Tyr Val Phe Leu Val Asn Thr Gly Thr Thr Leu Thr Phe
1   5   10   15

Asp Thr Glu Leu Thr Val Gln Thr Val Ala Asp Leu Lys His Ala Ile
          20   25   30

Gln Ser Lys Tyr Lys Ile Ala Ile Gln His Gln Val Leu Val Val Asn
          35   40   45

Gly Gly Glu Cys Met Ala Ala Asp Arg Arg Val Cys Thr Tyr Ser Ala
     50   55   60

Gly Thr Asp Thr Asn Pro Ile Phe Leu Phe Asn Lys Glu Met Ile Leu
65   70   75   80

Cys Asp Arg Ala Pro Ala Ile Pro Lys Ala Thr Phe Ser Thr Glu Asn
                85   90   95

Asp Met Glu Ile Lys Val Glu Glu Ser Leu Met Met Pro Ala Val Phe
            100   105   110

His Thr Val Ala Ser Arg Thr Gln Leu Ala Val Glu Met Tyr Asp Val
        115   120   125

Ala Lys Lys Leu Cys Ser Phe Cys Glu Gly Leu Val His Asp Glu His
    130   135   140

Leu Gln His Gln Gly Trp Ala Ala Ile Met Ala Asn Leu Glu Asp Cys
145   150   155   160

Ser Asn Ser Tyr Gln Lys Leu Leu Phe Lys Phe Glu Ser Ile Tyr Ser
            165   170   175

Asp Tyr Leu Gln Ser Ile Glu Asp Ile Lys Leu Lys Leu Thr His Leu
            180   185   190

Gly Thr Ala Val Ser Val Met Ala Lys Ile Pro Leu Leu Glu Cys Leu
        195   200   205

Thr Arg His Ser Tyr Arg Glu Cys Leu Gly Arg Pro Asp Ser Leu Asn
    210   215   220

Glu His Glu Gly Ser Glu Lys Ala Glu Met Lys Arg Ser Thr Glu Leu
225   230   235   240

Val Leu Ser Pro Asp Met Pro Arg Thr Thr Asn Thr Ser Leu Val Thr
            245   250   255

Ser Phe His Lys Ser Met Glu His Val Ala Pro Asp Pro Thr Gly Thr

```
                260                 265                 270

Glu Arg Gly Lys Glu Leu Arg Glu Ser Cys Gln Ser Thr Val Gln Gln
        275                 280                 285

Glu Glu Ala Ser Val Asp Ala Lys Asp Ser Asp Leu Pro Phe Phe Asn
        290                 295                 300

Val Ser Leu Leu Asp Trp Ile Asn Val Gln Asp Arg Pro Asn Asp Val
305                 310                 315                 320

Glu Ser Leu Val Arg Lys Cys Phe Asp Ser Met Ser Arg Leu Asp Pro
                325                 330                 335

Lys Ile Ile Gln Pro Phe Met Leu Glu Cys His Gln Thr Ile Ala Lys
                340                 345                 350

Leu Asp Asn Gln Asn Met Lys Ala Ile Lys Gly Leu Glu Asp Arg Leu
        355                 360                 365

Tyr Ala Leu Asp Gln Met Ile Ala Ser Cys Ser Arg Leu Val Asn Glu
        370                 375                 380

Gln Lys Glu Leu Ala Gln Gly Phe Leu Ala Asn Gln Met Arg Ala Glu
385                 390                 395                 400

Asn Leu Lys Asp Ala Ser Val Leu Pro Asp Leu Cys Leu Ser His Ala
                405                 410                 415

Asn Gln Leu Met Ile Met Leu Gln Asn His Arg Lys Leu Leu Asp Ile
                420                 425                 430

Lys Gln Lys Cys Thr Thr Ala Lys Gln Glu Leu Ala Asn Asn Leu His
                435                 440                 445
```

```
Val Arg Leu Lys Trp Cys Cys Phe Val Met Leu His Ala Asp Gln Asp
    450             455         460


Gly Glu Lys Leu Gln Ala Leu Leu Arg Leu Val Ile Glu Leu Leu Glu
465             470             475                 480


Arg Val Arg Ile Val Glu Ala Leu Ser Thr Val Pro Gln Met Tyr Cys
            485             490                 495


Leu Ala Val Val Glu Val Val Arg Arg Lys Met Phe Ile Lys His Tyr
            500             505                 510


Arg Glu Trp Ala Gly Ala Leu Val Lys Asp Gly Lys Gln Leu Tyr Glu
        515             520             525


Ala Glu Lys Ser Lys Arg Glu Ser Phe Gly Lys Leu Phe Arg Lys Ser
        530             535             540


Phe Leu Arg Asn Arg Leu Phe Lys Gly Leu Asp Ser Trp Pro Ser Ser
545             550             555             560


Phe Cys Thr Gln Lys Pro Arg Lys Phe Asp Cys Glu Leu Pro Asp Ile
                565             570             575


Ser Leu Lys Asp Leu Gln Phe Leu Gln Ser Phe Cys Pro Ser Glu Val
            580             585             590


Gln Pro Phe Leu Arg Val Pro Leu Leu Cys Asp Phe Glu Pro Leu His
            595             600             605


Gln His Val Leu Ala Leu His Asn Leu Val Lys Ala Ala Gln Ser Leu
    610             615             620


Asp Glu Met Ser Gln Thr Ile Thr Asp Leu Leu Asn Glu Gln Lys Val
625             630             635             640
```

Ser Thr Ser Gln Ala Ser Pro Gln Ser Ala Ala Ser Pro Arg Ile Glu
            645   650   655

Ser Thr Thr Gly Ile Thr Thr Thr Thr Ser Pro Lys Thr Pro Pro Pro
            660   665   670

Leu Thr Val Gln Asp Thr Leu Cys Pro Ala Val Cys Pro Leu Glu Glu
            675   680   685

Leu Ser Pro Asp Ser Ile Asp Ala His Thr Phe Asp Phe Glu Thr Ile
            690   695   700

Ser His Pro Asn Thr Glu Gln Pro Val His Gln Ala Ser Ile Asp Leu
705   710   715   720

Asp Ser Leu Ala Glu Ser Pro Glu Ser Asp Phe Met Ser Ala Val Asn
            725   730   735

Glu Phe Val Ile Glu Glu Asn Leu Ser Ser Pro Asn Pro Ile Ser Asp
            740   745   750

Pro Gln Ser Pro Glu Met Met Val Glu Ser Leu Tyr Ser Ser Val Ile
            755   760   765

Asn Ala Ile Asp Ser Arg Arg Met Gln Asp Thr Ser Thr Arg Gly Asn
            770   775   780

Glu Gly Phe Gly Asp Arg Ala Ala Leu His Val Gln Leu Glu Lys Cys
785   790   795   800

Arg Ala Ala Ala Gln Asp Ser His Thr Ser Ile Gln Thr Ile Lys Asp
            805   810   815

Asp Leu Cys His Phe Arg Thr Phe Val Gln Lys Glu Gln Cys Asp Leu
            820   825   830

Ala Asn Tyr Leu Lys Cys Thr Ala Val Glu Ile Arg Asn Ile Ile Glu
     835   840   845

Lys Val Lys Cys Ser Leu Glu Ile Thr Leu Lys Glu Lys His Gln Gln
   850   855   860

Glu Leu Gln Ser Leu Lys Ile Glu Tyr Glu Cys Lys Leu Asp Ala Leu
865   870   875   880

Val Lys Asp Ser Glu Glu Asn Val Asn Lys Ile Leu Lys Leu Lys Glu
        885   890   895

Asn Leu Val Ser Leu Glu Glu Ala Leu Gln Asn Lys Asp Asn Glu Phe
     900   905   910

Thr Ser Ile Lys His Glu Lys Asp Ala Ile Val Cys Val Gln Gln Glu
     915   920   925

Lys Asp Gln Lys Leu Leu Glu Met Glu Lys Ile Met His Thr Gln His
   930   935   940

Cys Glu Ile Lys Glu Leu Lys Gln Ser Arg Glu Met Ala Leu Glu Asp
945   950   955   960

Leu Lys Lys Leu His Asp Glu Lys Ile Glu Ser Leu Arg Ala Glu Phe
        965   970   975

Gln Cys Leu Glu Glu Asn His Leu Lys Glu Leu Glu Asp Thr Leu His
        980   985   990

Ile Arg His Thr Gln Glu Phe Glu Lys Val Met Thr Asp His Asn Met
     995   1000   1005

Ser Leu Glu Lys Leu Lys Lys Glu Asn Gln Gln Arg Ile Asp Gln

```
           1010                1015                1020

Met Leu  Glu Ser His Ala Ser  Thr Ile Gln Glu Lys  Glu Gln Gln
      1025                1030                1035


Leu Gln  Glu Leu Lys Leu Lys  Val Ser Asp Leu Ser  Asp Met Arg
      1040                1045                1050


Cys Lys  Leu Glu Val Glu Leu  Ala Leu Lys Glu Ala  Glu Thr Asp
      1055                1060                1065


Glu Ile  Lys Ile Leu Leu Glu  Glu Ser Arg Thr Gln  Gln Lys Glu
      1070                1075                1080


Met Leu  Lys Ser Leu Leu Glu  Gln Glu Thr Glu Asn  Leu Arg Thr
      1085                1090                1095


Glu Ile  Ser Lys Leu Asn Gln  Lys Ile His Asp Asn  Asn Glu Ser
      1100                1105                1110


Tyr Gln  Val Gly Leu Ser Glu  Leu Arg Ala Leu Met  Thr Ile Glu
      1115                1120                1125


Lys Asp  Gln Cys Ile Ser Glu  Leu Ile Ser Arg His  Glu Glu Glu
      1130                1135                1140


Ser Asn  Ile Leu Lys Ala Glu  Leu Asp Asn Val Thr  Ser Leu His
      1145                1150                1155


Arg Gln  Ala Tyr Glu Ile Glu  Lys Lys Leu Lys Glu  Gln Ile Val
      1160                1165                1170


Glu Leu  Gln Thr Arg Leu Asn  Ser Glu Leu Ser Ala  Leu Glu Lys
      1175                1180                1185
```

Gln Lys Asp Glu Lys Ile Thr Gln Gln Glu Glu Lys Tyr Glu Ala
    1190   1195   1200

Leu Ile Gln Asn Leu Glu Lys Asp Lys Glu Arg Leu Val Lys Asn
    1205   1210   1215

His Glu Gln Asp Lys Glu His Leu Ile Gln Glu Leu Asn Phe Glu
    1220   1225   1230

Lys Asn Lys Ala Val Gln Thr Ala Leu Asp Glu Phe Lys Val Glu
    1235   1240   1245

Arg Glu Leu Val Glu Lys Glu Leu Leu Glu Lys Val Lys His Leu
    1250   1255   1260

Glu Asn Gln Ile Ala Lys Thr Pro Ala Phe Glu Ser Ala Arg Glu
    1265   1270   1275

Asp Ser Ser Ser Leu Val Ala Glu Leu Gln Glu Lys Leu Gln Glu
    1280   1285   1290

Glu Lys Ala Lys Phe Leu Glu Gln Leu Glu Glu Gln Glu Lys Arg
    1295   1300   1305

Lys Asn Glu Glu Met Gln Asn Val Arg Thr Ser Leu Ile Ala Glu
    1310   1315   1320

Gln Gln Thr Asn Phe Asn Thr Val Leu Thr Arg Glu Lys Met Arg
    1325   1330   1335

Lys Glu Asn Ile Ile Asn Asp Leu Ser Asp Lys Leu Lys Ser Thr
    1340   1345   1350

Met Gln Gln Gln Glu Arg Asp Lys Asp Leu Ile Glu Ser Leu Ser
    1355   1360   1365

```
Glu Asp  Arg Ala Arg Leu Leu  Glu Glu Lys Lys Gln  Leu Glu Glu
    1370             1375             1380


Glu Val  Ser Lys Leu Arg Thr  Ser Ser Phe Leu Ser  Ser Ala Pro
    1385             1390             1395


Val Ala  Ala Ala Pro Glu Leu  Tyr Gly Ala Cys Ala  Pro Glu Leu
    1400             1405             1410


Pro Gly  Glu Pro Glu Arg Ser  Val Met Glu Thr Ala  Asp Glu Gly
    1415             1420             1425


Arg Leu  Asp Ser Ala Met Glu  Thr Ser Met Met Ser  Val Gln Glu
    1430             1435             1440


Asn Met  Leu Ser Glu Glu Lys  Gln Arg Ile Met Leu  Leu Glu Arg
    1445             1450             1455


Thr Leu  Gln Leu Lys Glu Glu  Glu Asn Lys Arg Leu  Asn Gln Arg
    1460             1465             1470


Leu Met  Ser Gln Ser Leu Ser  Ser Val Ser Ser Arg  His Ser Glu
    1475             1480             1485


Lys Ile  Ala Ile Arg Asp Phe  Gln Val Gly Asp Leu  Val Leu Ile
    1490             1495             1500


Ile Leu  Asp Glu Arg His Asp  Asn Tyr Val Leu Phe  Thr Val Ser
    1505             1510             1515


Pro Thr  Leu Tyr Phe Leu His  Ser Glu Ser Leu Pro  Ala Leu Asp
    1520             1525             1530


Leu Lys  Pro Gly Glu Gly Ala  Ser Gly Ala Ser Arg  Arg Pro Trp
    1535             1540             1545
```

```
Val Leu  Gly Lys Val Met Glu  Lys Glu Tyr Cys Gln  Ala Lys Lys
    1550              1555          1560


Ala Gln  Asn Arg Phe Lys Val  Pro Leu Gly Thr Lys  Phe Tyr Arg
    1565              1570          1575


Val Lys  Ala Val Ser Trp Asn  Lys Lys Val
    1580              1585
```

<210> 3
<211> 6636
<212> DNA
<213> Unknown

<220>
<223> human RB1CC1 gene

<400> 3
```
gtcgacaata acaaaccaag ccgcggcggt gtccgcggcc ctgccgagcc ctcggcgttg      60

cctcagaatc ccccagtcgc ctgggcccct cggctctgac aggccgcggc cttctgtccc     120

ccggccccag acccagagcc gaggggcctg ctcgcgtcct tgtccgcccg gacccctccc     180

tgcctcctag agttcggggc cgcggcgggc gggcgcccgg gacgccggcg gttgtgtcgg     240

cttagcggtg ccgaatgggc ggttggtaac cgctgccgag gactaggcgg cggcggaaga     300

tggtgccggg ggtcgctggc tctgctgctg ccgccggcga aggaggaggc gttgccggtt     360

ttctgagttt aaccagtaat gccattcagt tgccaatctc aagcaaagca aacataagcc     420

agttttaatc tacttttaa gaaaagtggt agtccttttc acagtgcctg acgtaactgt     480

atcagagggt gaggtataag ctcacagaat tcagataaat catcatgaag ttatatgtat     540

ttctggttaa cactggaact actctaacat ttgacactga acttacagtg caaactgtgg     600

cagaccttaa gcatgccatt caaagcaaat acaagattgc tattcaacac caggtgctgg     660

tggtcaatgg aggagaatgc atggctgcag atcgaagagt gtgtacctac agtgctggga     720
```

```
cggatacaaa tccaattttt cttttttaaca aagaaatgat cttatgcgat cgtccacctg      780

ctattcctaa aactaccttt tcgacagaaa atgacatgga aataaaagtt gaagaatctc      840

ttatgatgcc tgcagttttt catactgttg cttcaaggac acagcttgca ttggaaatgt      900

atgaagttgc caagaaactt tgttcttttt gtgaaggtct tgtacatgat gaacatcttc      960

aacaccaagg ctgggctgca atcatggcca acctggagga ctgttcaaat tcataccaaa     1020

agctactttt caagtttgaa agtatttatt caaattatct gcagtccata gaagacatca     1080

agttaaaact tactcattta ggaactgcag tttcagtaat ggccaagatt ccactgttgg     1140

agtgcctaac cagacatagt tacagagaat gtttgggaag actggattct ttacctgaac     1200

atgaagactc agaaaaagct gagacgaaaa gatccactga actggtgctc tctcctgata     1260

tgcctagaac aactaacgaa tctttgttaa cctcatttcc caagtcagtg gaacatgtgt     1320

ccccagatac cgcagatgct gaaagtggca agaaaattag ggaatcttgt caaagtactg     1380

ttcatcagca agatgaaact acgattgaca ctaaagatgg tgatctgccc ttttttaatg     1440

tctctttgtt agactggata aatgttcaag atagacctaa tgatgtggaa tctttggtca     1500

ggaagtgctt tgattctatg agcaggcttg atccaaggat tattcgacca tttatagcag     1560

aatgccgtca aactattgcc aaacttgata atcagaatat gaaagccatt aaaggacttg     1620

aagatcggct ctacgccctg gaccagatga ttgctagctg tggccgactg gtgaatgaac     1680

agaaagagct tgctcaggga tttttagcta atcagaagag agctgaaaac ttaaaggatg     1740

catctgtatt acctgattta tgcctgagtc acgcaaatca gttgatgatt atgttgcaaa     1800

atcatagaaa actgttagat attaagcaga agtgtaccac tgccaaacaa gaactagcaa     1860

ataacctaca tgtcagactg aagtggtgtt gctttgtaat gcttcatgct gatcaagatg     1920

gagagaagtt acaagctttg ctccgcctcg taatagagct gttagaaaga gtcaaaattg     1980

ttgaagctct tagtacagtt cctcagatgt actgcttagc tgttgttgag gttgtaagaa     2040

gaaaaatgtt cataaaacac tacagggagt gggctggtgc tttagtcaaa gatggaaaga     2100

gattatatga agcagaaaaa tcaaaaaggg aatcctttgg gaaattattt aggaagtctt     2160
```

```
ttttaagaaa tcgtctgttt aggggactgg actcctggcc cccttccttt tgtactcaaa    2220
agcctcgaaa gtttgactgt gaacttccag atatttcatt aaaagattta cagtttctgc    2280
aatcattttg tccttcggaa gttcagccat tcctcagggt tcccttactt tgtgactttg    2340
aacctctaca ccagcatgta cttgctctac ataatttggt aaaagcagca caaagtttgg    2400
atgaaatgtc acagaccatt acagatctac tgagtgaaca aaaggcatct gtgagccaga    2460
catccccaca gtctgcttct tcaccaagga tggaaagtac agcaggaatt acaactacta    2520
cctcaccgag aactcctcca ccactgactg ttcaggatcc cttatgtcct gcagtttgtc    2580
ccttagaaga attatctcca gatagtattg atgcacatac gtttgatttt gaaactattc    2640
cccatccaaa catagaacag actattcacc aagtttcttt agacttggat tcattagcag    2700
aaagtcctga atcagatttt atgtctgctg tgaatgagtt tgtaatagaa gaaaatttgt    2760
cgtctcctaa tcctataagt gatccacaaa gcccagaaat gatggtggaa tcactttatt    2820
catcagttat caatgcgata gacagtagac gaatgcagga tacaaatgta tgtggtaagg    2880
aggattttgg agatcatact tctctgaatg tccagttgga aagatgtaga gttgttgccc    2940
aagactctca cttcagtata caaaccatta aggaagacct ttgccacttt agaacatttg    3000
tacaaaaaga acagtgtgac ttctcaaatt cattaaaatg tacagcagta gaaataagaa    3060
acattattga aaaagtaaaa tgttctctgg aaataacact aaaagaaaaa catcaaaaag    3120
aactactgtc tttaaaaaat gaatatgaag gtaaacttga cggactaata aaggaaactg    3180
aagagaatga aaacaaaatt aaaaaattga agggagagtt agtatgcctt gaggaggttt    3240
tacaaaataa agataatgaa tttgctttgg ttaaacatga aaaagaagct gtaatctgcc    3300
tgcagaatga aaaggatcag aagttgttag agatggaaaa tataatgcac tctcaaaatt    3360
gtgaaattaa agaactgaag cagtcacgag aaatagtgtt agaagactta aaaaagctcc    3420
atgttgaaaa tgatgagaag ttacagttat tgagggcaga acttcagtcc ttggagcaaa    3480
gtcatctaaa ggaattagag gacacacttc aggttaggca catacaagag tttgagaagg    3540
```

```
ttatgacaga ccacagagtt tctttggagg aattaaaaaa ggaaaatcaa caaataatta    3600

atcaaataca agaatctcat gctgaaatta tccaggaaaa agaaaaacag ttacaggaat    3660

taaaactcaa ggtttctgat ttgtcagaca cgagatgcaa gttagaggtt gaacttgcgt    3720

tgaaggaagc agaaactgat gaaataaaaa ttttgctgga agaaagcaga gcccagcaga    3780

aggagacctt gaaatctctt cttgaacaag agacagaaaa tttgagaaca gaaattagta    3840

aactcaacca aaagattcag gataataatg aaaattatca ggtgggctta gcagagctaa    3900

gaactttaat gacaattgaa aaagatcagc gtatttccga gttaattagt agacatgaag    3960

aagaatctaa tatacttaaa gctgaattaa acaaagtaac atctttgcat aaccaagcat    4020

ttgaaataga aaaaaaccta aaagaacaaa taattgaact gcagagtaaa ttggattcag    4080

aattgagtgc tcttgaaaga caaaaagatg aaaaaattac ccaacaagaa gagaaatacg    4140

aagctattat ccagaacctt gagaaagaca gacaaaaatt ggtcagcagc caggagcaag    4200

acagagaaca gttaattcag aagcttaatt gtgaaaaaga tgaagctatt cagactgccc    4260

taaaagaatt taaattggag agagaagttg ttgagaaaga gttattagaa aaagttaaac    4320

atcttgagaa tcaaatagca aaaagtcctg ccattgactc taccagagga gattcttcaa    4380

gcttagttgc tgaacttcaa gaaaagcttc aggaagaaaa agctaagttt ctagaacaac    4440

ttgaagagca agaaaaaaga aagaatgaag aaatgcaaaa tgttcgaaca tctttgattg    4500

cggaacaaca gaccaatttt aacactgttt taacaagaga gaaaatgaga aaagaaaaca    4560

taataaatga tcttagtgat aagttgaaaa gtacaatgca gcaacaagaa cgggataaag    4620

atttgataga gtcactttct gaagatcgag ctcgtttgct tgaggaaaag aaaaagcttg    4680

aagaagaagt cagtaagttg cgcagtagca gttttgttcc ttcaccatat gtagctacag    4740

ccccagaact ttatggagct tgtgcacctg aactcccagg tgaatcagat agatccgctg    4800

tggaaacagc agatgaagga agagtggatt cagcaatgga gacaagcatg atgtctgtac    4860

aagaaaatat tcatatgttg tctgaagaaa aacagcggat aatgctgtta gaacgaacat    4920

tgcaattgaa agaagaagaa aataaacggt taaatcaaag actgatgtct cagagcatgt    4980
```

```
cttcagtatc ttcaaggcat tctgaaaaga tagctattag agattttcag gtgggagatt    5040

tggtactcat catcctagac gaacgccatg acaattatgt gttatttact gttagtccta    5100

ctttatattt tctacattca gagtctctac ctgccctgga tctcaaacca ggtgagggtg    5160

cttcaggtgc atctagaaga ccctgggtac ttggaaaagt aatggaaaaa gaatactgtc    5220

aagccaaaaa ggcacaaaac agatttaaag ttcctttggg gacaaagttt tacagagtga    5280

aagccgtatc atggaataag aaagtataac ttatggacaa aattaataca ttctatgaca    5340

ttttttttctg atttgtcctg cagtgctcat tcatcactcc aaaaacagca ggccatcttt    5400

ttatgcaaaa gtcagcgtga caatatactt cactggtgta catcgtttac tttttaactg    5460

gcttcatttt aggaataata aattcatcag aatccttggc tgaattaaaa tggttttttgt    5520

tttttggttt tttttttttac ccagacaact ctagaaatgc ggaccaaact acttcatttt    5580

ctcaaagggc ataccttgtg cattgtggct tatgatgagc catattaatt gcctgttaaa    5640

tatacactag cttgaactta gatgttaaat gttattatta ccagcatttg tccttttgtg    5700

aaatcagtat cagaatactt gcactcttta acacattctt tataaaatgt ataaattatt    5760

cagaactatt taaaataaag aggagtgtta ttgcatgctg ataatcattt tgagtttgcc    5820

tcagtagata ctaaagcaaa ttgtttcagt ttttttaaat gccctttgat gtttcaaaaa    5880

aaaaaaggaa ctgtaatttg attgactgat tttaagatca gccataagta atcagcaatc    5940

ttcaaaagca ctttcagtgg attggtcatc tgggttctaa agggaagagt ctgtgctact    6000

aaccatttca aatgcagact caaaccttcc caacatcttt atgactctag aataatcata    6060

ttgatgaaat cgtaattcat ggttgagttt cagaacaaaa gatattcatt gcacattaac    6120

catttagagg tcatttaaat aacaaaatat tgtattgtaa aagaactgta caattttaaa    6180

acaataaaga tttgaacctg taaatgtgtg tgcctttttaa agaaggatac atttttaata    6240

tatttgagtg attgctggga agtgtgaaaa tattgttatg tatcatatca aagagaaaca    6300

tgtttattac aaaaatgttc tttaactata tactatgtaa cagggtaaac agtgttatgt    6360
```

```
agaatagaat tgtgtaaact agatctttag agaagttgcc attgagcaaa gttatttaaa    6420

tgagttagtt gagttggatg agaattgttt gaggtttgtt gctagagaac aataataaaa    6480

taattctttt tcagaaaata tttaatttct tcataaaaat aagttaaata tttttttaaa    6540

tatgtatatc taatagtaca aaatggaata aacatcatag tgtatagaaa actgaatttg    6600

acaagttaat gaataaatga acaaatgatt tcaaaa                              6636
```

```
<210>  4
<211>  6518
<212>  DNA
<213>  Unknown

<220>
<223>  mouse Rb1cc1 gene

<400>  4
ccgagtcgac aataacaaac cccacggcgg ccgcgaccca gccctgccaa gctctcagtg     60

cctcggccgg cggactcggg tccccgcgcg gagccgaggg gccggagcag cggctgcgcc    120

cgactcccat ccttccgggc ctcgccgggt actcggcggc tgggcgccga cggttgtgtc    180

ggttggcggc gccgcagggg cggttgatag ccgccgccga ggccagggcg gcggcagaag    240

atggtgcgga gggccgccgg ctgtgttgct gccgcgggcg gaggaggcgc tgccggttct    300

ctgagtttca ccagtaatgc cactcagttg ccaatatcaa gcaagcgcat ataagacaat    360

tgtaatcttt taagaaaagt agtacttctc ttcacagtat ctggcggatc aacactggag    420

ggtgaggtgt cagcttccag aaagatcatc atgaagttat atgtgtttct ggttaacacc    480

ggaaccacgc tgacatttga cactgagcta actgtgcaaa ctgtggctga tcttaagcat    540

gccattcaaa gcaaatacaa gattgctatt cagcaccagg ttctggtggt caatggagga    600

gaatgcatgg ctgcagatcg aagagtgtgt acttacagcg ctgggacgga cacaaatcca    660

atttttcttt ttaataaaga aatgatctta tgtgaccgtg cacctgctat tcctaaagct    720

accttttcaa cagaaaatga catggaaata aaagttgaag agtctcttat gatgcctgca    780

gttttccaca ctgttgcttc aaggacacag cttgcagtgg aaatgtatga cgttgccaag    840
```

```
aagctctgct ctttctgtga agggcttgtc catgatgaac atcttcagca ccaaggctgg    900

gctgcaatca tggccaatct ggaggactgt tcaaattcat accaaaaact tcttttcaag    960

tttgaaagta tttattctga ttatcttcaa tccatagaag acatcaagtt aaaacttact   1020

catttaggaa ctgctgtttc agtaatggcc aagattccac tattggagtg cctaaccaga   1080

catagttaca gggaatgttt gggaagaccg gattctttga atgaacatga aggctcagag   1140

aaagctgaga tgaaaagatc tactgaactg gtgctctctc ctgatatgcc tagaacaacg   1200

aacacatcct tggtaacctc atttcacaag tcaatggagc atgtagctcc agatcccacc   1260

ggtactgaac gtggcaaaga acttagggaa tcttgtcaaa gtactgtcca gcaagaagaa   1320

gcttcagtgg atgctaaaga cagtgatctg cctttttttta atgtttcttt gttagactgg   1380

ataaatgttc aagatagacc caatgatgtg gaatctctgg tcaggaagtg ctttgattct   1440

atgagcaggc ttgacccaaa gattattcaa ccatttatgt tagaatgcca tcaaactatt   1500

gccaaacttg ataatcagaa tatgaaagcc attaaagggc ttgaagatcg gctgtatgcc   1560

ttggaccaga tgattgctag ctgtagccgg ctggtaaatg aacagaaaga gcttgctcag   1620

ggatttttag ctaatcagat gagagctgaa aacttgaagg atgcatctgt gttacctgat   1680

ctgtgtctga gtcatgcaaa tcaactaatg attatgttgc aaaaccacag aaaactgttg   1740

gatattaaac agaagtgcac cactgccaaa caagagctag caaacaatct ccacgtcaga   1800

ctgaagtggt gttgttttgt gatgcttcat gctgatcaag atggagaaaa actgcaggca   1860

ctgctccgcc ttgtaataga gctgttagaa agagtcagaa ttgttgaggc tcttagtaca   1920

gttcctcaga tgtattgcct agctgttgtt gaggttgtaa gaagaaaaat gttcattaaa   1980

cactacagag agtgggctgg tgctttagtc aaagacggaa aacaactata tgaagctgaa   2040

aagtcaaaaa gggaatcctt tgggaaatta tttaggaagt cctttttaag aaatcgtctg   2100

tttaaaggac tggactcctg gccttcctca ttttgtactc agaagcctcg aaaatttgac   2160

tgtgaacttc cagatatatc attaaaagat ttacagtttc ttcaatcatt ttgtccttca   2220
```

gaagtgcagc cattcctcag ggtcccctta ctttgtgact ttgaacctct acaccagcat   2280

gtacttgccc tacataattt ggtaaaagca gcacaaagtt tggatgaaat gtcacagact   2340

attacagatc tcctaaatga acaaaaggta tccacaagtc aggcatcccc acagtcagct   2400

gcttctccaa gaatagaaag tacaacaggc attacaacca ctacctcacc aaaaactcct   2460

cctccactaa ctgttcagga caccttatgt ccggcagtgt gtcccttaga agaattatct   2520

ccagatagta tcgatgctca tacatttgat ttcgaaacca tctcccatcc aaacacagaa   2580

caacctgttc accaagcttc tatagacttg gattcattag cagaaagccc tgagtctgac   2640

tttatgtctg ctgtgaatga gtttgtgata gaagaaaatt tatcgtctcc aaaccctata   2700

agtgatccac aaagtccaga aatgatggtg gagtcacttt actcttcagt catcaatgca   2760

atagatagta ggcgtatgca agacacaagt acacgtggaa acgagggctt tggggatcgg   2820

gctgctctac atgtccagct ggagaaatgc agagctgctg cacaagactc tcacaccagt   2880

atacaaacca tcaaggacga tctgtgccat ttcagaacat ttgtacaaaa agaacagtgt   2940

gacttagcaa attatttaaa atgtacagct gtagaaataa gaaatattat tgaaaaagta   3000

aaatgttctc tagaaataac actaaaggaa aagcatcagc aagaactcca atctttaaaa   3060

attgagtatg aatgtaaact tgatgctcta gtaaaagaca gtgaagaaaa tgtaaataaa   3120

attttaaaat tgaaagaaaa tttagtatcc cttgaagagg ctttacaaaa taaagacaat   3180

gaattcactt cgattaaaca tgaaaaggat gctattgtct gtgtgcagca agaaaaggat   3240

cagaagttgt tagagatgga aaagataatg catactcaac attgtgaaat taaagaactg   3300

aagcagtcac gagagatggc attagaagac ctgaaaaagc tgcatgatga aaaaatcgag   3360

tcattgagag ctgaatttca gtgcttagaa gaaaatcacc tgaaggaatt agaggacaca   3420

ctgcacatca ggcacacaca ggagtttgag aaagttatga cagaccacaa tatgtctttg   3480

gagaaattaa aaaagaaaa tcagcaaaga attgaccaga tgctagaatc tcatgcctca   3540

actattcagg aaaaagagca acagctgcag gagttgaaac tcaaagtttc tgacttgtca   3600

gacatgagat gtaagttaga ggttgaactt gcactaaagg aagcagaaac agatgagata   3660

```
aagatcttgt tggaagagag cagaacacag cagaaggaaa tgctgaagtc tttacttgaa   3720

caagagaccg aaaacttaag aacagaaata agtaaactaa accaaaaaat tcatgataat   3780

aatgagagtt accaggtggg tttgtcagag ttaagagctt taatgacaat tgaaaaagat   3840

cagtgcattt cagagttaat cagtagacat gaagaagaat ctaatatact taaggctgaa   3900

ttagacaatg ttacatcttt gcatcgccaa gcatatgaaa tagaaaaaaa actgaaagaa   3960

caaatagttg aattgcagac tagattgaac tcagaattga gtgctcttga aaaacagaaa   4020

gatgaaaaaa ttacccaaca agaagagaag tatgaagcac ttatccagaa ccttgagaaa   4080

gacaaggaga gactggtcaa gaaccacgag caagacaaag aacacttaat tcaggagctt   4140

aattttgaaa aaaacaaagc tgttcaaact gcactagatg aatttaaggt ggagagagaa   4200

cttgttgaga aagagttatt agaaaaagtt aaacatcttg agaatcaaat agccaaaact   4260

cctgcctttg agtcagccag agaagattct tcaagcttag ttgcggaact tcaagagaaa   4320

cttcaagaag aaaaagctaa gtttctggaa caacttgaag aacaagagaa aagaaagaat   4380

gaggaaatgc aaaatgtcag aacctctttg attgctgagc agcagaccaa ctttaacaca   4440

gtcttaacaa gagagaaaat gaggaaagaa aacataataa atgatcttag tgataagcta   4500

aaaagtacaa tgcagcagca agagcgggat aaagatttga tagagtcgct ctctgaggac   4560

cgagctcgtt tgcttgaaga gaagaagcag cttgaagagg aagtgagtaa actccgcact   4620

agcagttttc tttcctcagc acctgtggct gcagccccag agctctatgg tgcgtgtgca   4680

cctgagctcc caggggagcc agagagatca gtcatggaga cggcagatga aggaagactg   4740

gattccgcaa tggagacaag catgatgtct gtccaagaaa acatgttatc tgaagagaag   4800

cagaggatca tgctcctaga acggacattg cagttgaaag aagaagaaaa caagcggtta   4860

aatcaaagac tgatgtctca gagtttgtcc tcagtctctt caaggcattc tgaaaaaata   4920

gccattagag attttcaggt gggagatttg gttctcatca tcctagatga gcggcacgac   4980

aattatgtat tgtttactgt tagtcctact ttatattttc tgcactcaga gtctcttcct   5040
```

```
gccctggatc tcaaaccagg tgagggagct tcaggtgcat ctagaagacc ctgggtcctt    5100

gggaaagtaa tggaaaagga atactgtcaa gccaaaaagg cacaaaacag atttaaagtt    5160

cctttgggga caaagtttta cagagtgaaa gctgtgtcat ggaataagaa agtatagcca    5220

cagaagaaat ctctacatct cataccattt ttgatttgtc ctccagtgct gataaactac    5280

tctaaaaaca gctggccatt gttgggtttt tttttgttgt ttgtttgttt gtttgttttt    5340

acaaaagtca acataacaat atacttcatt ggtggactgc acttaccttt taagtggcta    5400

catcttagga acaataaatt tattaaaatt cttggctgaa tcaaaatggt tttgttttgt    5460

ttccacccaa ataactagaa attcggacca aaatagatgt tttccaaggg cagagcctgc    5520

actgtggctt gtgactagcc tcattagttg cctgttaata aacattagct gaatagttac    5580

cagtgttgtt accagcattt gtcctcttgt gaattcaaga gtcctcgcac tctttaacat    5640

gttctttata aaatgtataa acccttccaa actatttaaa gaggagtgtt attgcatgca    5700

gataatcata attttgagtt tgcctcagaa gactactaaa gcaaatttgt tcattttttt    5760

ttaaaaaaat gccctttaat gtttcaaaaa aaaataacag tgtaatttga ctgactttaa    5820

gatcagccat aaataatgag cagtcttcaa aagcactttt cacacagatc atctgggctc    5880

cagggaggaa gagtctgtgc cactgatgtt ttcaagtgca ggactcactc aaacctctca    5940

gcatcttagg actgtttcaa gtaatcatat tgatgaactc gtaattcatg gttgaccttc    6000

agaagaagat attcattgta tattaacatt tagaggtcat ttaaataaca aaagtctgta    6060

ttgtaaagga cctgtacaat tttaagacaa taaagaattg aaagtgtaaa tgtgtgtgcc    6120

ttttaaaggt tacattttaa atatattgcg tgatttctgg gaaaggtgaa aaaaatgttc    6180

tgtatcaaag agaaacctgt ttattaaaaa atgttgtttg tatcctatgt aacagggtga    6240

agtggtgttc tgtggaacag aaccatgtaa actcaaggtt taaaagctgg cactgaacaa    6300

agatattgaa gtagctaggc tagttgattg gaaagagttt cttcagggtt gttgttagca    6360

gtaataaatg attctttttc agaaatattt aatttctcca taaaaataag ttggatattt    6420

ttataaatat gtaatctaat agaatgaaaa tggaataaac atagtgtata gaatacctaa    6480
```

ttcaaaaaca tattaatgaa taaacgaaca aatgatta   6518

<210> 5
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S1

<400> 5
gacgtaactg tatcagaggg   20

<210> 6
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S2

<400> 6
tcagagggtg aggtataagc   20

<210> 7
<211> 28
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S3

<400> 7
atcatcatga agttatatgt atttctgg   28

<210> 8
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-ASP2

<400> 8
ttggccatta ctgaaactgc a   21

<210> 9
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S4

<400> 9
tgtggaatct ttggtcagga   20

<210> 10
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-ASP1

<400> 10
taatccttgg atcaagcctg c   21

<210> 11
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S5

<400> 11
tgtaccactg ccaaacaaga a   21

<210> 12
<211> 20
<212> DNA
<213> Artificial

<220>

<223> artificially synthesized primer sequence called CC1-S6

<400> 12
cttcggaagt tcagccattc   20

<210> 13
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S6R

<400> 13
tccatccttg gtgaagaagc   20

<210> 14
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S7

<400> 14
tccccatcca aacatagaac a   21

<210> 15
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S8

<400> 15
aaggaagacc tttgccactt t   21

<210> 16
<211> 22
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S9

<400> 16
gaactgaagc agtcacgaga aa   22

<210> 17
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S10

<400> 17
ttgtcagaca cgagatgcaa   20

<210> 18
<211> 22
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S11

<400> 18
aaattatcag gtgggcttag ca   22

<210> 19
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-S

<400> 19
ccaggagcaa gacagagaac   20

<210> 20
<211> 20
<212> DNA
<213> Artificial

```
<220>
<223>  artificially synthesized primer sequence called CC1-AS

<400>  20
cgagctcgat cttcagaaag                                            20


<210>  21
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called CC1-AS5

<400>  21
tgcttgtctc cattgctgaa                                            20


<210>  22
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called CC1-AS4

<400>  22
ccaaatctcc cacctgaaaa                                            20


<210>  23
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called HCC22INTS

<400>  23
ctagacgaac gccatgacaa                                            20


<210>  24
<211>  23
<212>  DNA
```

<213> Artificial

<220>
<223> artificially synthesized primer sequence called HCC22INTAS

<400> 24
tggcttgaca gtattctttt tcc   23

<210> 25
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-AS2

<400> 25
tgagcactgc aggacaaatc a   21

<210> 26
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called CC1-AS1

<400> 26
tgatgaatga gcactgcagg a   21

<210> 27
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called RB1CC-RS1

<400> 27
cctccctgcc tcctagagtt   20

<210> 28
<211> 20

```
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called RB1CC-R4

<400>  28
tagtcctcgg cagcggttac                                               20


<210>  29
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called RB1CC-R3

<400>  29
aaactcagaa aaccggcaac                                               20


<210>  30
<211>  21
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called RB1CC-R2

<400>  30
tgccacagtt tgcactgtaa g                                             21


<210>  31
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called RB1CC-R1

<400>  31
tttccaatgc aagctgtgtc                                               20


<210>  32
```

```
<211>  21
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called RB1CC-RS2

<400>  32
gagtgaaagc cgtatcatgg a                                              21


<210>  33
<211>  21
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called RB1CC-RS3

<400>  33
aatgcggacc aaactacttc a                                             21


<210>  34
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called on RB1CC-RS4

<400>  34
tcagtggatt ggtcatctgg                                               20


<210>  35
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called RB1CC-RS5

<400>  35
tgattgctgg gaagtgtgaa                                               20
```

<210> 36
<211> 23
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called RB1CC-RS6

<400> 36
gagaattgtt tgaggtttgt tgc   23

<210> 37
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called RB1CC-R5

<400> 37
ttgctcaatg gcaacttctc   20

<210> 38
<211> 23
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MMK3-1-S

<400> 38
gggtgaggta taagctcaca gaa   23

<210> 39
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MMK3-2-S

<400> 39
tcttatgtga tcgtccacct g   21

```
<210>  40
<211>  23
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MMK3-2-AS

<400>  40
caaaggattc ccttttttgat ttt                                          23


<210>  41
<211>  26
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MMK6-2-S

<400>  41
gctaatcaga agagagctga aaactt                                        26


<210>  42
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MMK1-1-S

<400>  42
gatggtgatc tgcccttttt                                               20


<210>  43
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MMK1-2-S

<400>  43
taagcatgcc attcaaagca                                               20
```

<210> 44
<211> 23
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MMK15-1-S

<400> 44
tttctttata cagggaagtc ttt   23

<210> 45
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MMK15-2-AS

<400> 45
ttttcagaat gccttgaaga t   21

<210> 46
<211> 23
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MMK31-2-S

<400> 46
aggataccat catcctagac gaa   23

<210> 47
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MMK31-2-AS

<400> 47

cttaccaccc tcacctggtt   20

<210> 48
<211> 26
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MMK40-S

<400> 48
ttttgtattt taagtttagg aactgc   26

<210> 49
<211> 23
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MMK38-S

<400> 49
ataggataca aatccaattt ttc   23

<210> 50
<211> 27
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MMK31-S

<400> 50
aaaatatagg atacaaatcc aatgaca   27

<210> 51
<211> 24
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MMK36-S

<400> 51
aaaggatgca tctgtattac ctga   24

<210> 52
<211> 19
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MMK340-S1

<400> 52
gccaacctgg aggactgtt   19

<210> 53
<211> 23
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-S1

<400> 53
ggttctctga gtttcaccag taa   23

<210> 54
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-S2

<400> 54
atcaacactg gagggtgagg   20

<210> 55
<211> 28
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called EcoCC1S3

<400> 55
atcatcatga agttatatgt gtttctgg   28

<210> 56
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized prmier sequnece called MCC-S7

<400> 56
gatgcctgca gttttccaca   20

<210> 57
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-S8

<400> 57
acgtggcaaa gaacttaggg   20

<210> 58
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-AS4

<400> 58
gcttcttctt gctggacagt   20

<210> 59
<211> 20
<212> DNA
<213> Artificial

<220>

<223> artificially synthesized primer sequence called MCC-S11

<400> 59
ccttggacca gatgattgct   20

<210> 60
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer seuqnece called MCC-S9

<400> 60
gggtcccctt actttgtgac t   21

<210> 61
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-AS8

<400> 61
catccaaact ttgtgctgct   20

<210> 62
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-S12

<400> 62
tgctgcacaa gactctcaca   20

<210> 63
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificialy synthesized primer sequence called MCC-AS6

<400> 63
ggcacagatc gtccttgatg g   21

<210> 64
<211> 22
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-S13

<400> 64
tgaacttgca ctaaaggaag ca   22

<210> 65
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-AS7

<400> 65
cagcatttcc ttctgctgtg   20

<210> 66
<211> 24
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-S14

<400> 66
tgagtgctct tgaaaaacag aaag   24

<210> 67
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-S15

<400> 67
ttgcggaact tcaagagaaa c   21

<210> 68
<211> 24
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MIRB1CC-5

<400> 68
ctggaacaac ttgaagaaca agag   24

<210> 69
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MIRB1CC-3

<400> 69
acgagctcgg tcctcagaga   20

<210> 70
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-S3

<400> 70
tcaggtggga gatttggttc   20

<210> 71
<211> 20
<212> DNA

<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-AS3

<400> 71
tgccgctcat ctaggatgat   20

<210> 72
<211> 20
<212> DNA.
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-AS2

<400> 72
cagcactgga ggacaaatca   20

<210> 73
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-AS1

<400> 73
agtcacaagc cacagtgcag   20

<210> 74
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-ASR1

<400> 74
tgctttgaat ggcatgctta   20

<210> 75
<211> 20

```
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MCC-ASR2

<400>  75
cctcaccctc cagtgttgat                                          20


<210>  76
<211>  18
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer seuqnece called MCC-ASR3

<400>  76
cctccgcacc atcttctg                                            18


<210>  77
<211>  18
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called INTRON1ASR

<400>  77
cagggtcccc gtaggact                                            18


<210>  78
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MCC-SR1

<400>  78
tcaggtggga gatttggttc                                          20


<210>  79
```

```
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized priemr sequence called MCC-SR2

<400>  79
ccagcatttg tcctcttgtg                                    20


<210>  80
<211>  21
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MCC3=S3

<400>  80
ttttgagttt gcctcagaag a                                  21


<210>  81
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MCC3-S4

<400>  81
tcggaattca tggttgacct                                    20


<210>  82
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MCC3-AS2

<400>  82
tttcccagaa atcacgcaat                                    20
```

<210> 83
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC3-AS13

<400> 83
tctttgttca gtgccagctt t   21

<210> 84
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer seuqnece called MCC15S

<400> 84
accaggtggg tttgtcagag   20

<210> 85
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC15AS

<400> 85
cttggcgatg caaagatgta   20

<210> 86
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-3S

<400> 86
acactggagg gtgaggtgtc   20

<210> 87
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MCC-3AS

<400> 87
gtgtcaaatg tcagcgtggt   20

<210> 88
<211> 18
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT1-S

<400> 88
gacggttgtg tcggttgg   18

<210> 89
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT1-AS

<400> 89
ttggcaactg agtggcatta   20

<210> 90
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT2-SO

<400> 90
tgccactcag ttgccaagta   20

<210> 91
<211> 22
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT2-S

<400> 91
cacagtatct ggcggtaagt ca   22

<210> 92
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT3-AS

<400> 92
cccagcgctg taagtacaca   20

<210> 93
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT4-S

<400> 93
taagcatgcc attcaaagca   20

<210> 94
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT4-AS

<400> 94

caggtgcacg gtcacataag   20


```
<210>  95
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer seuqnece called MINT5-S

<400>  95
```
gcagttttcc acactgttgc   20


```
<210>  96
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MINT5-AS

<400>  96
```
ctccagattg gccatgattg   20


```
<210>  97
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MINT6-S

<400>  97
```
gccaatctgg aggactgttc   20


```
<210>  98
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer seuqnece called MINT6-AS
```

<400> 98
agaatccggt cttcccaaac   20

<210> 99
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT7-S

<400> 99
cccaatgatg tggaatctct g   21

<210> 100
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT7-AS

<400> 100
agcaatcatc tggtccaagg   20

<210> 101
<211> 19
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT8-S

<400> 101
aagatcggct gtatgcctt   19

<210> 102
<211> 22
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT8-AS

<400> 102
caacagtttt ctgtggtttt gc   22

<210> 103
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized priemr sequence called MINT9-S

<400> 103
ggatgcatct gtgttacctg a   21

<210> 104
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT9-AS

<400> 104
gcctgcagtt tttctccatc   20

<210> 105
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT10-S

<400> 105
gctccgcctt gtaatagagc   20

<210> 106
<211> 20
<212> DNA
<213> Artificial

<220>

<223> artificially synthesized primer sequence called MINT10-AS

<400> 106
ccaaaggatt cccttttga   20

<210> 107
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT11-S

<400> 107   .
gggctggtgc tttagtcaaa   20

<210> 108
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT11-AS

<400> 108
aaaatgagga aggccaggag   20

<210> 109
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT12-S

<400> 109
actcctggcc ttcctcattt   20

<210> 110
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT12-AS

<400> 110
tgaggaatgg ctgcacttct   20

<210> 111
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT13-S

<400> 111
gcctcgaaaa tttgactgtg a   21

<210> 112
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT13-AS

<400> 112
tccaaacttt gtgctgcttt t   21

<210> 113
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artficially synthesized primer sequence called MINT14-S

<400> 113
aaaagcagca caaagtttgg a   21

<210> 114
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT14-AS

<400> 114
tggaggagga gtttttggtg   20

<210> 115
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT15-S

<400> 115
ccacgagcaa gacaaagaac   20

<210> 116
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT15-AS

<400> 116
tccgcaacta agcttgaaga a   21

<210> 117
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT16-S

<400> 117
tgaggaaatg caaaatgtca   20

<210> 118
<211> 20
<212> DNA

<213> Artificial

<220>
<223> artificially synthesized priemr sequence called MINT16-AS

<400> 118
gctcttgctg ctgcattgta   20

<210> 119
<211> 22
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT17-S

<400> 119
aaagtacaat gcagcagcaa ga   22

<210> 120
<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT17-AS

<400> 120
tgctgaggaa agaaaactgc t   21

<210> 121
<211> 19
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT18-S

<400> 121
agctctatgg tgcgtgtgc   19

<210> 122
<211> 21

```
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MINT18-AS

<400>  122
gagcatgatc ctctgcttct c                                            21


<210>  123
<211>  22
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence called MINT19-S

<400>  123
tctgaagaga agcagaggat ca                                           22


<210>  124
<211>  22
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized primer sequence calle MINT19-AS

<400>  124
cagtctttga tttaaccgct tg                                           22


<210>  125
<211>  24
<212>  DNA
<213>  Artificial

<220>
<223>  artificially synthesized priemr sequence called MINT20-S

<400>  125
cattgcagtt gaaagaagaa gaaa                                         24


<210>  126
```

<211> 21
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT20-AS

<400> 126
tgccttgaag agactgagga c   21

<210> 127
<211> 22
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT21-S

<400> 127
tctcttcaag gcattctgaa aa   22

<210> 128
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT21-AS

<400> 128
atccagggca ggaagagact   20

<210> 129
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer sequence called MINT22-S

<400> 129
agcggcacga caattatgta   20

<210> 130
<211> 22
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer seuqnece called MINT22-AS

<400> 130
ttttccatta ctttcccaag ga   22

<210> 131
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer seuqnece called MINT23-S

<400> 131
ctgggtcctt gggaaagtaa   20

<210> 132
<211> 20
<212> DNA
<213> Artificial

<220>
<223> artificially synthesized primer seuqnece called MINT23-AS

<400> 132
cagcactgga ggacaaatca   20